



**Worcester Industrial Products Corp**

# **How to Assemble, Use, and Care For**

## *The Shortening Shuttle<sup>®</sup> Pump*



*Shown with Optional Shuttle Wand (SS-WAND)*

**Model # SS-914**

# Safety Precautions

Please read carefully and follow all safety precautions to ensure maximum safety.

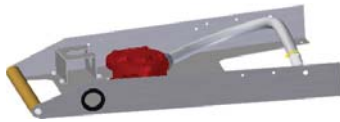
- ☞ Maximum temperature the tank of the Shuttle Pump will safely withstand: 300°F
- ☞ **Warning:** You **MUST** wear proper clothing when operating this unit. We recommend using heat resistant Safety Gloves. See OSHA guidelines for handling hot oil.
- ☞ **Caution:** Skin burns at 120°F. For maximum safety use when hot oil is below 120°F.

# Operating Precautions

- ☞ **Caution:** Debris must be kept out of the pump when not in use. Make sure that a Basket Strainer & the suction tube strainer (at end of hose) are in place at all time.
- ☞ **Warning:** *Do Not use excessive force to rotate the pump. Excessive force will damage the pump.*
- ☞ **Warning:** If water is pumped through the unit, the pump will be damaged by subsequent rust deposits. If water is accidentally run through the pump, then pump four(4) to eight(8) cups of clear warm oil (80 to 90°F) through it to clear out the water and coat the internal parts with oil.
- ☞ **Cleaning:** Rinse outside only with hot water and a mild detergent (Do Not use any caustic cleaning agents). Clean the inside by wiping with a cloth or paper towels. Do Not put water inside the **Shortening Shuttle® Pump**.
- ☞ **Never** leave water in the unit. **Never** run water thru pump.
- ☞ **Never** mix hot oil with water in the unit.

# Assembly Instructions

The following parts are included in the 2 boxes for the *Shuttle Pump*:



1 Pump/Handle Assembly



1 Tank Assembly



1 Long H2 Hose Assembly

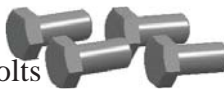
1 pair of Safety Gloves



1 Crank Handle



4 3/8-16 x 3/4 long Bolts



& 4 Washers



4 3/8-16 Lock Nuts



1 Universal Assembly Tool



1 SP-BS-100, Basket Strainer



**Optional Shuttle Wand**  
(SS-WAND)



◆ Note: Before beginning assembly inspect all included parts to be sure there is **no** shipping damage. Contact the shipper immediately if there is any damage.

The *Shortening Shuttle® Pump* has been designed for quick and easy assembly. The **Pump/Handle Assembly** and the **Tank Assembly** have been shipped in two boxes to minimize shipping damage.

Orient the **Pump/Handle Assembly** and the **Tank Assembly** as shown in *figure 1*. Slide the two assemblies together so that the Side Holes line up, then insert a 3/8 Bolt, Washer & Nut at each side, finger tight.

Now insert a 3/8 Bolt & Washer up from the back and a Nut from the top side, then repeat for the other side. Tighten firmly all of the 3/8 Bolts & Nuts using the Universal Assembly Tool.

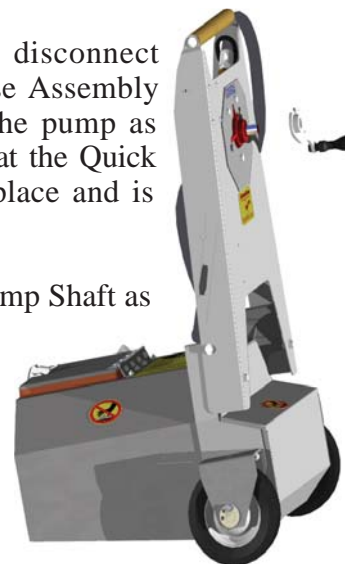
Attach the Pump H3-Y Hose to the Tank by sliding the Quick disconnect onto the fitting on the tank. Make sure that the Quick connector clicks in place and is firmly seated.



Slide the Quick disconnect of the Long H2 Hose Assembly onto the fitting on the pump as shown. Make sure that the Quick connector clicks in place and is firmly seated.

Lastly, attach the crank handle onto the Pump Shaft as shown in *figure 2*. Be careful that the bolt is lined up with the hole in the side of the pump shaft. Firmly tighten the bolt. **Caution: Overtightening will break the handle.**

This completes the assembly of the *Shortening Shuttle® Pump*. Please read the next section to learn how to operate the unit safely.



*figure 2*

# How To Use The *Shortening Shuttle*<sup>®</sup> Pump

The *Shortening Shuttle*<sup>®</sup> Pump has been designed for safety, durability and ease of use. It is very maneuverable thus is well suited to narrow aisles and tight spaces.

If the *Shortening Shuttle*<sup>®</sup> Pump has not been used in a while then priming the pump is recommended. Start by removing the long hose quick disconnect at the pump outlet. Pour about 1/4 -1/2 cup of clear oil (room temperature or higher) into the pump. **Re-connect the long hose.** Rotate the pump in reverse a couple of turns to coat it internally with oil.



Shown with Optional Shuttle Wand  
(SS-WAND)

Wheel the *Shortening Shuttle*<sup>®</sup> Pump to the fryer. Open the cover, make sure that the Basket Strainer is in place, then position the *Shortening Shuttle*<sup>®</sup> Pump under the drain outlet.

**Warning: The Basket Strainer must be used to catch debris that may clog and/or solidify in the pump causing damage to the pump.**

Carefully drain the fryer oil through the Basket Strainer and into the *Shortening Shuttle*<sup>®</sup> Pump. Be careful, too much oil flow may cause splashing and/or overflowing.

If the oil flow through the Basket Strainer becomes very slow then stop the oil flow and after allowing it to cool, remove the Basket Strainer and clean it. This is normal when the oil is very dirty and full of large breading particles etc.

*Alternately* you may use the hose and hand pump to pump the waste fryer oil into the unit by reversing the normal pumping out rotation. Be careful, **DO NOT PUMP DEBRIS** into the unit because you will clog the pump!

**Caution:** Maximum Safe Capacity is 1” below the opening. The unit will hold up to 95 Lbs. or 12.5 gallons.

**Caution:** Operating unit without the “Teflon Glide Block” will scratch and/or damage a floor. Replace immediately if it is missing or excessively worn.



After filling, close the cover securely with the latch clasped and make sure that the hose is in the coiled position with the hose end inserted into the storage keyhole.

Wheel the **Shortening Shuttle<sup>®</sup> Pump** to the disposal site. Using Safety Gloves, Un-stow the hose or optional wand and hold it in the disposal container. While holding the hose/wand rotate the pump handle in the direction indicated by the arrow until all the oil has been transferred (note: it is normal for a small amount of oil to be left in the bottom of the unit).



*Shown with Optional Shuttle Wand (SS-WAND)*

Before stowing the hose/wand rotate the pump in the *reverse direction* for 6 to 12 rotations. This action will drain the residual waste oil left in the pump and hose back into the **Shortening Shuttle® Pump** thus clearing the pump and minimize dripping of oil from the end of the hose.

## Filtering with the **Shortening Shuttle® Pump**

Using the Optional Basket Filter (SP-BF-200) you may filter your oil. If you are going to be filtering your oil with the **Shortening Shuttle® Pump** then *before* you filter you **MUST** dump at least one tank of oil to the dumpster to flush out the debris from manufacturing.

If you have not already done so, you may want to purchase the optional Hose Wand (SS-WAND) which aids filtering and oil draining



*Shown with Optional Shuttle Wand (SS-WAND)*

by safely extending the length of the hose when pumping the filtered oil back into the fryer or pumping waste oil into a dumpster.

You must **ALWAYS** use the Basket Strainer, even when dumping the oil to ensure that the pump does not become clogged.

When filtering is finished and before stowing the hose rotate the pump in the *reverse direction* for 6 to 12 rotations. This action will drain the residual waste oil left in the pump and hose back into the **Shortening Shuttle® Pump** thus clearing the pump and minimize dripping of oil from the end of the hose.

◆ If the oil that is being pumped out has a lot of breadding and/or flower in it that has not been caught by the Basket Strainer, then you **must** pump two(2) to four(4) cups of clear warm (80 to 90°F) shortening through the pump to clear away the flower and/or breadding. Otherwise the pump will seize up.

**Caution:** Debris must be kept out of the pump when not in use. Make sure that the Basket Strainer is in place at all time.

**Warning:** *Do Not use excessive force to rotate the pump. Excessive force will damage pump.*

**Cleaning:** Rinse outside only with hot water and a mild detergent (Do Not use any caustic cleaning agents). Clean inside by wiping with a cloth or paper towels. Do Not put water inside the **Shortening Shuttle® Pump**.

**Warning:** *If water is pumped through the unit the pump will be damaged by subsequent rust deposits. If water is accidentally pumped through the **Shortening Shuttle® Pump** then you must pump enough oil through it to clear all the oil and re-coat the inside of the pump to keep it from rusting.*

# **Troubleshooting:**

## **Crank turns freely but no oil is being pumped:**

If the crank turns very freely but no pumping is occurring then the pump may need to be primed.

### ***Solution:***

Disconnect the Long H2 Hose from the pump at the Quick disconnect and pour 1/4 to 1/2 cup oil clear oil into the pump, this should prime it so that suction will now occur. ***Re-Connect the Quick disconnect BEFORE turning the crank handle.*** Rotate the pump in reverse a couple of turns to coat it internally with oil.

## **Oil flows very slowly through the Basket Strainer:**

If there is a lot of debris & breadding in the oil then the Basket Strainer will become clogged.

### ***Solution:***

Turn off the oil drain, let the Basket Strainer cool, then remove it and clean it with soap & hot water. This condition is normal if the oil has a lot of debris & breadding in it.

## **Crank does not turn:**

If the crank does not turn there is probably debris & breadding that has solidified inside the pump and adhered to the vanes & sidewall of the pump.

### ***Solution:***

You may need to remove pump from the handle assembly and take it apart for cleaning. You may need to order a replacement pump.

## **Crank turns but not easily:**

If the pump turns, but not easily then there may be debris inside the pump that is impeding the pump vanes.

### ***Solution:***

First, try pumping two(2) to four(4) cups of clear warm oil (80 to 90°F) through the pump in an effort to clear any debris. If this does not help then you may need to remove pump from the handle assembly and take it apart for cleaning. You may need to order a replacement pump.

**Crank turns but no oil is being pumped:**

If the crank & pump turns but no oil is being pumped then there may be a blockage in the suction tube/hose or the suction tube screen is blocked.

***Solution:***

First check and clear any blockage around the suction tube screen. If there is a blockage in the suction tube/hose then first try to loosen the blockage by setting the unit in a area that is above 90°F for one(1) to two(2) hours. If that doesn't help then you will have to dis-assemble the hose from the pump to the suction tube, clear the debris from the hose and/or suction tube then re-assemble the hose to the pump and suction tube.

**Oil is leaking out around the crank:**

If there is oil leaking out from around the crank then most likely the seal in the pump has failed.

***Solution:***

A replacement pump must be ordered, the seal is not field replaceable.

**Oil has solidified in pump & hose(s):**

Oil has solidified in the pump and/or hoses from being left without being pumped out or due to not having back flushed the pump.

***Solution:***

Set the unit in an area that is above 90°F for one(1) to two(2) hours to allow the oil to warm up so that it may be pumped out. If this does not work than you may have to dis-assemble and clean out the hoses and pump. You may need to remove pump from the handle assembly and take it apart for cleaning. You may need to order a replacement pump.

# *Shortening Shuttle® Pump*

## **Replacement Parts**

Long Hose Assm. ....	914-H2
Short Hose Assm. ....	914-H3-Y1
12" Wooden Handle Kit .....	914-203
Double Wheel Kit.....	914-204
Wheel Bracket Kit.....	914-205
Safety Gloves, heat resistant .....	914-207
Red Pump .....	914-960
Cover Assembly .....	914-211
Teflon Glide Block .....	914-213
Basket Strainer .....	SP-BS-100
Crank Handle Parts.....	914-218
Safety Labels Kit.....	914-219
Shuttle Wrench .....	914-050
Quick Coupler (brass) .....	914-220
Quick Plug (1/2 NPT) .....	914-221
Quick Plug (3/4 NPT) .....	914-222

## **Accessories**

Shuttle Wand .....	SS-WAND
Basket Filter .....	SP-BF-200

***For Parts Call 800-533-5711***

***or***

***e-mail [sales@shortening-shuttle.com](mailto:sales@shortening-shuttle.com)***

*Specifications subject to change without notice.*



# **Worcester Industrial Products Corp**

Worcester, Massachusetts 01605

**800-533-5711 508-757-5161**

**FAX 508-831-9990**

e-mail [sales@Shortening-Shuttle.com](mailto:sales@Shortening-Shuttle.com)

**[www.Shortening-Shuttle.com](http://www.Shortening-Shuttle.com)**

## **12 Month Warranty**

If, within twelve months from date of purchase, this *Shortening Shuttle® Pump* fails due to a defect in materials or workmanship, simply call us and we will repair or replace it free of charge.

Note: this does not include parts that normally wear.

( This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. )

**Worcester Industrial Products Corp  
7 Brookfield Street, Worcester, MA 01605**